

Cause Map™ Collapse of Big Blue

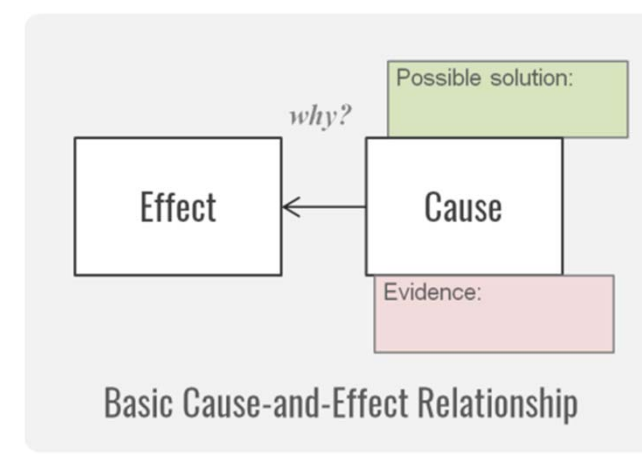
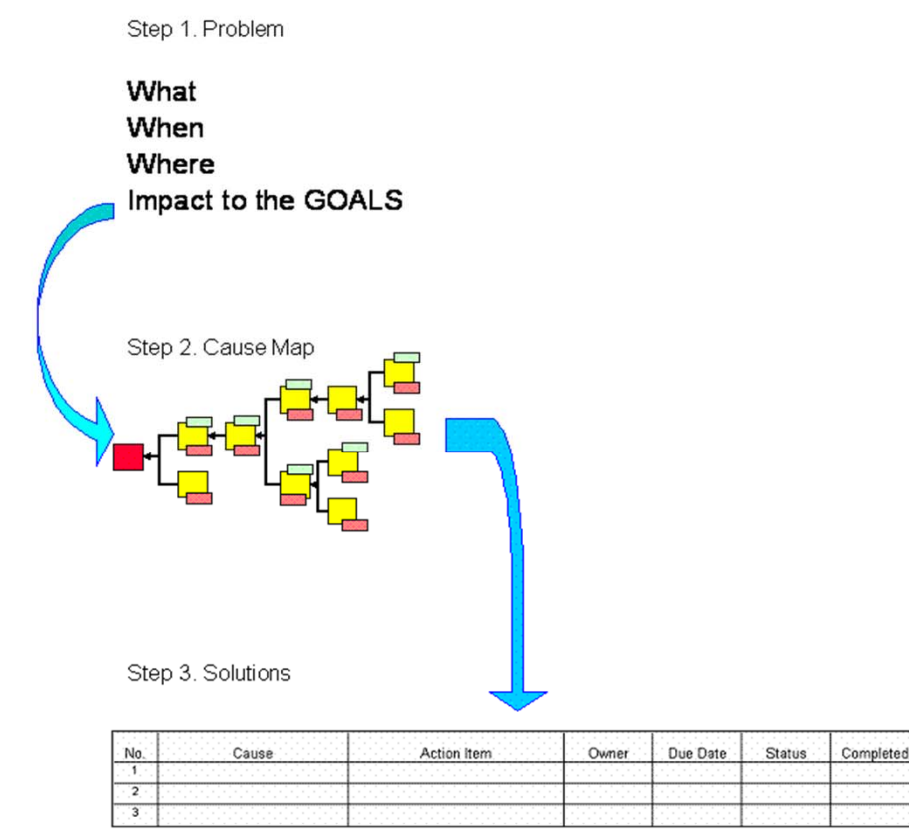
CAUSE MAPPING - 3 STEPS

Problem Solving Steps

1. Problem
Identify the Problem

2. Analysis
Identify the Causes

3. Solutions
Identify Corrective Actions



Step 1 Define the Problem

What	Problem(s)	3 Fatalities from Collapse of Big Blue Crane
When	Date	July 14, 1999
	Time	approx 5.15pm
Where	Different, unusual, unique	High Wind Conditions, Behind on Project
	Facility, site	Milwaukee Brewers Baseball Stadium
	Unit, area, equipment	"Big Blue" Lampson Transi-Lift 1500 series crane
	Task being performed	lifting roof sections into place

Impact to each GOAL

Safety	3 Fatalities & 5 Injuries	
Environment	?	
Customer	Negative Reputation/National Publicity	
Legal Costs	(7 week trial, \$94 Million was punitive damages) Prime Contractor found to be 97% liable for damages	\$99,254,000
	20 OSHA Citations	\$539,000
	Cost for all Attorneys & Support Personnel	Big ?
Production, Schedule	1 year delay to construction project	
Property, Equipment	Repairs to areas impacted by truss & crane	\$100,000,000
Labor, Time		

This incident \$199,793,000

Step 2 Cause Map™ Analysis

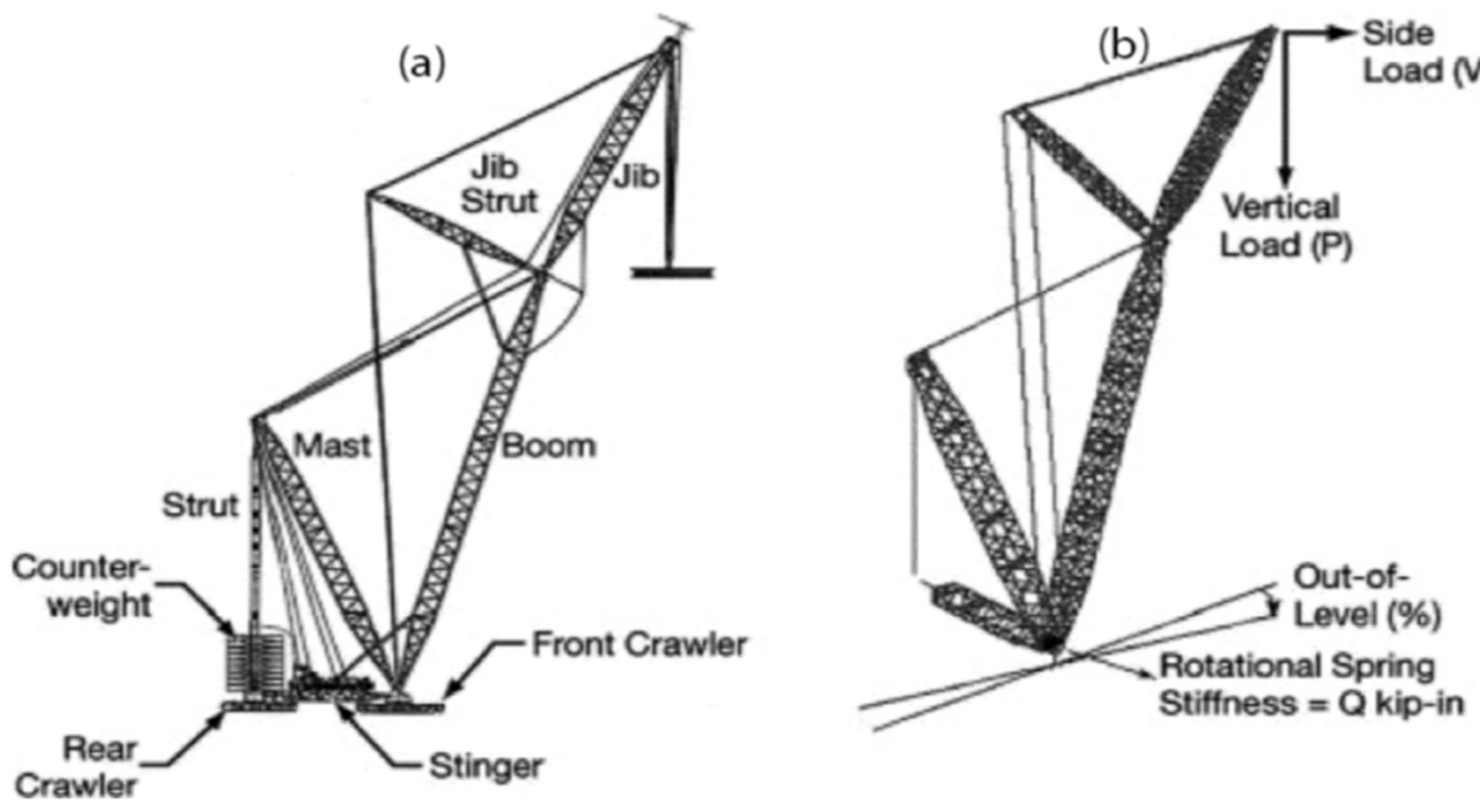
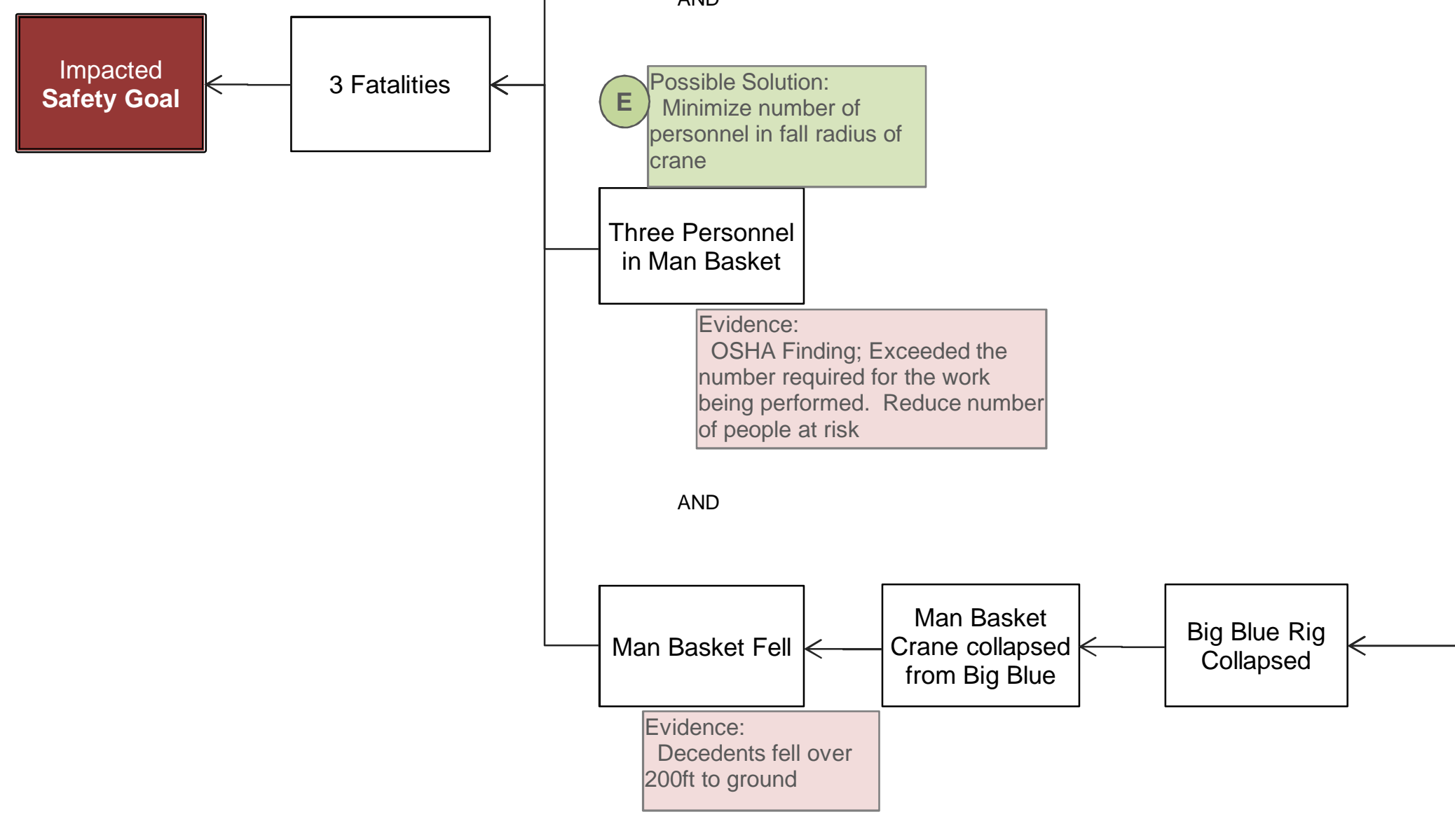


Figure 1a & 1b - Big Blue Crane components diagrams. (Ross, 2007)

Step 3 Solutions

Possible Solutions for Consideration

Ref.	Possible Solution	Cause Controlled	Work Process (process to be improved)	Implementation - Action Plan							
				Implement? (yes or no)	No.	Specific Actions (specific actions to be taken)	Owners (names)	Due Date	Measurable (how will we verify completion and effectiveness)	Status	

